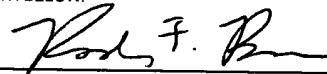


CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE  
ADDRESSED TO THE COMMISSIONER FOR PATENTS, WASHINGTON D.C. 20231, ON THE DATE SET FORTH BELOW.

February 20, 2003

DATE

  
RODNEY F. BROWN



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Mark A. Plummer et al. )  
Serial No: 09/774,826 ) Group Art Unit: 1764  
Filed: January 30, 2001 )  
For: Removal of Sulfur from a Hydrocarbon ) Examiner: Walter D. Griffin  
Through a Selective Membrane )  
Attorney Docket No: 970019 USA )  
\_\_\_\_\_  
)

Commissioner for Patents  
Washington, D.C. 20231

TECHNOLOGY CENTER 1700

TECH - 5  
FEB - 5 2003

RECEIVED

DECLARATION UNDER 37 C.F.R. §1.131 OF PRIOR INVENTION  
TO OVERCOME A CITED UNITED STATES PATENT APPLICATION PUBLICATION

Sir:

This declaration is to establish completion of the invention of the above-referenced patent application ("the Application") in the United States at a date prior to December 28, 2000, which is the effective date of the prior art United States Patent Application Publication No. US 2002/0111524 A1 ("the '524 Publication"). The '524 Publication was cited by the examiner in the Office Action for the Application mailed by the United States Patent and Trademark Office (PTO) on August 29, 2002.

The persons making this declaration are the two joint inventors of the Application, Mark A. Plummer and Richard F. Bonelli, Jr.

## **CONCEPTION**

The joint inventors allege conception of the invention claimed in the Application ("the Claimed Invention") in the United States on a date prior to December 28, 2000, the effective date of the '524 Publication.

## **FACTS AND DOCUMENTARY EVIDENCE**

The following facts are recited in support of the conception allegation:

- 1) The joint inventors executed a four page invention disclosure form ("the Invention Disclosure") entitled "Marathon Oil Company and Subsidiaries Invention Disclosure" prior to December 28, 2000. The Invention Disclosure recites actual execution dates prior to December 28, 2000.  
[A-1 - A-4]
- 2) Marathon Oil Company was the employer of both joint inventors at the time of conception of the Claimed Invention and execution of the Invention Disclosure.  
[A-1]
- 3) Two witnesses read and executed the Invention Disclosure prior to December 28, 2000. The Invention Disclosure recites actual execution dates prior to December 28, 2000.  
[A-1]
- 4) The Invention Disclosure includes a specific written description of the Claimed Invention.  
[A-3]

- 5) The Invention Disclosure includes a drawing which is a schematic flow chart of the process of the Claimed Invention.  
[A-4]
- 6) The Invention Disclosure recites an actual conception date of the Claimed Invention prior to December 28, 2000.  
[A-1]
- 7) Marathon Oil Company is the assignee of the Application and the Claimed Invention.

A true copy of the Invention Disclosure ("Exhibit A") is attached hereto as documentary evidence in support of Facts 1-6 listed above. Fact 7 is of record in the PTO. Specific page references within the exhibit are entered in brackets after each Fact 1-6. All actual dates recited in Exhibit A have been blocked off. Applicant relies on the allegation that Facts 1-6 occurred prior to December 28, 2000.

#### **DILIGENCE**

The joint inventors allege diligence in the United States from the time just prior to the effective date of the '524 Publication (i.e., just prior to December 28, 2000) up to the filing date of the Application (i.e., January 30, 2001).

#### **FACTS AND DOCUMENTARY EVIDENCE**

The following facts are recited in support of the diligence allegation:

- 1) Rodney F. Brown is outside patent counsel for Marathon Oil Company and an attorney of record in the Application, who drafted the specification of the Application

on behalf of Marathon Oil Company prior to December 27, 2000, after consultation with the two joint inventors.

[C-2]

- 2) The first joint inventor, Mark A. Plummer, completed reviewing the final draft of the Application and notified Rodney F. Brown via e-mail on December 27, 2000, his approval to file the Application.

[B-9]

- 3) Rodney F. Brown prepared the Assignment and the Combined Declaration and Power of Attorney in the Application on December 28, 2000.

[C-2]

- 4) Rodney F. Brown electronically transmitted the Assignment and the Combined Declaration and Power of Attorney to the Mark A. Plummer on December 28, 2000, for execution.

[B-8]

- 5) Mark A. Plummer executed the Assignment and the Combined Declaration and Power of Attorney on January 2, 2001, and mailed the executed documents to Rodney F. Brown prior to January 9, 2001.

[B-3, B-5, B-7]

- 6) Rodney F. Brown mailed the Assignment and the Combined Declaration and Power of Attorney to the second joint inventor, Richard F. Bonelli, Jr., on January 9, 2001, for execution.

[B-3]

- 7) Richard F. Bonelli, Jr. executed the Assignment and the Combined Declaration and

Power of Attorney on January 15, 2001, and mailed the executed documents to Rodney F. Brown on January 15, 2001.

[B-2]

- 8) Rodney F. Brown received the executed Assignment and the Combined Declaration and Power of Attorney from Richard F. Bonelli, Jr. on January 20, 2001.

[B-2]

- 9) Rodney F. Brown compiled the Application and prepared the application transmittal documents between January 20, 2001 and January 30, 2001.

[B-1, B-2]

- 10) Rodney F. Brown filed the Application in the PTO on January 30, 2001, by depositing the Application in express mail on the same date.

A true copy of correspondence between applicant and applicant's attorney during the time period of interest ("Exhibit B") and a true copy of invoices from applicant's attorney for services performed with respect to the Application during the time period of interest ("Exhibit C") are attached hereto as documentary evidence in support of Facts 1-9 listed above. Specific page references within the exhibits are entered in brackets after each Fact 1-9. Fact 10 is of record in the PTO.

#### **TIME OF PRESENTATION OF THE DECLARATION**

This declaration is submitted prior to final rejection.

## DECLARATION

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

## SIGNATURES

Mark A. Plummer

U.S.A.

Full Name of First Joint Inventor

Citizenship

Mark A. Plummer  
First Inventor's Signature

Feb 17 2003  
Date

Centennial Colorado Arapahoe  
Residence (City, State and Country)

7780 South Dexter Court  
Post Office Address

Richard F. Bonelli, Jr.

Full Name of Second Joint Inventor

U.S.A.

Citizenship

R. L. D. Bonelli Jr.  
Second Inventor's Signature

Feb 18, 2003

Date

Robinson, Illinois USA  
Residence (City, State and Country)

8512 North 1100<sup>th</sup> Street  
Post Office Address

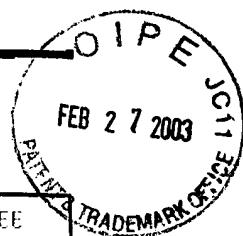
RFB:0213a.002

attachments:      Exhibit A  
                        Exhibit B  
                        Exhibit C

**CONFIDENTIAL**  
**MARATHON OIL COMPANY AND SUBSIDIARY**  
**INVENTION DISCLOSURE**

Fill in the blanks with available data and prepare each invention as a separate disclosure. Insert one or more specific examples of the proposed solution, drawings where necessary, and attach notebook references. Each page should be signed. Please print or type where possible.

Disclosure No.: 970019 USA  
 Project No.: U001367  
 Rating No.:



INVENTORS (First Name Middle Initial Last Name)	NATIONALITY (Citizen of)	HOME ADDRESS (Street, City, State, Zip & County)	EMPLOYEE NUMBER
Mark A. Plummer Jerry T. Ranney-- Supervisor	U.S.	7780 S. Dexter Ct, Littleton Colorado, 80122	39446
Richard F. Bonelli, Jr. Jerry C. Welch--Supervisor	U.S.	8512 N. 1100th St, Robinson Illinois, 62454	45173

List in order inventor(s)' immediate supervisor(s)

First thought of invention [REDACTED] Wrote a first description of it in [REDACTED]

(Set out where first described) and made first drawing on [REDACTED]

First disclosed invention [REDACTED], who understood it, on [REDACTED]

and started development of the invention on [REDACTED] Completed invention on

In Progress [REDACTED]. The invention was NA Published NA. Commercialized first on

NA [REDACTED]. If this is the first description of the invention, have the invention witnessed by two people who understand it. Note this fact in your notebook and have the witnesses read and sign the notebook and this disclosure.

TITLE: Removal Of Sulfur And Sulfur Oxide Hydrocarbon Species From Hydrocarbon Feeds Or Aqueous Solutions Of These Sulfur Species Using Solid Membranes

**Problem Solved By This Invention:**

The maximum amount of allowable sulfur in refinery, gas plant and other hydrocarbon sources is becoming increasingly smaller. As a result, conventional hydrotreating to remove sulfur as hydrogen sulfide is becoming more difficult and costly. Hence, other methods of sulfur removal are required especially for low sulfur concentrations. One approach is to oxidize hydrocarbon sulfur species to their organic sulfoxide and sulfone forms for subsequent removal. This disclosure presents a method to remove hydrocarbon sulfur and their sulfoxide and sulfone forms using solid membranes.

RECEIVED

Inventor(s) Signatures

1. Signed <i>Mark A. Plummer</i> Date [REDACTED]	3. Signed _____ Date _____
2. Signed <i>Richard F. Bonelli, Jr.</i> Date [REDACTED]	4. Signed _____ Date _____

Witness(es) Signatures

I (We) have read all 4 pages of this disclosure, and I (We) understand the described invention, and witness the signatures(s) of the inventor(s).

Signature *Jerry C. Welch* Date [REDACTED] Signature *Walter L. Lutz* Date [REDACTED]  
 Page 1 of 4 page(s) Form 1410.6

• List prior Art and any prior Solutions to the problem solved by the Invention:  
Direct hydrogenation which can cause loss in other valuable hydrocarbon properties-e.g., octane loss in gasolines.

General description of the solution to the problem:

Use of solid membranes which allow highly selective mass transfer of hydrocarbon sulfur and sulfur oxide species out of non-sulfur containing hydrocarbons or out of aqueous solutions of the sulfur oxides species.

Specific description of invention and examples:

See following two pages

RECEIVED

Inventor(s) Signatures

1. Signed		Date [REDACTED]	3. Signed	Date [REDACTED]
2. Signed		Date [REDACTED]	4. Signed	Date [REDACTED]

Witness(es) Signatures

I (We) have read all 4 pages of this disclosure, and I (We) understand the described invention, and witness the signatures(s) of the inventor(s).

Signature 	Date [REDACTED]	Signature 	Date [REDACTED]
Page 2 of 4 page(s)	Form 1A		

NAME OF INVENTION Removal Of Sulfur And Sulfur Oxide Hydrocarbon Species From Hydrocarbon Feeds Or Aqueous Solutions Of These Sulfur Species Using Solid Membranes

SPECIFIC DESCRIPTION OF INVENTION AND EXAMPLES:

The objective of this disclosure is to selectively remove hydrocarbons containing sulfur or sulfur oxide compounds from refinery or gas plant liquid feed hydrocarbons or from aqueous solutions of these sulfur compounds.

The disclosed process uses solid membranes. One type of membrane provides a selective adsorptive surface to the sulfur and sulfur oxide compounds. The absorbed sulfur compounds then diffuse along the membrane surface and exit the membranes into a solvent hydrocarbon. The second membrane type rejects passage of the sulfur and sulfur oxide compounds via an electronegative charged surface. With the second membrane type, feed hydrocarbon containing no sulfur or the water phase then diffuses through the membrane into a hydrocarbon or aqueous solvent phase. In some applications, the feed aqueous phase or the feed hydrocarbon phase containing no sulfur can also be the solvent phase.

With the first membrane type, the solvent phase exhibits a higher boiling point range than that of the feed hydrocarbon. The hydro-carbon sulfur compounds are then distilled from the solvent as an overhead stream. The overhead stream can then be hydrogenated to convert the sulfur compounds into hydrogen sulfide, water and sulfur free hydrocarbon. Alternatively, the hydrocarbons containing sulfur oxides can be heat treated to decompose them into sulfur dioxide and sulfur free hydrocarbon.

*M.A. Plummer*

With the second membrane type, the non-permeating phase contains mostly hydrocarbon sulfur compounds. This stream can be heat treated to decompose the sulfur oxide compounds into sulfur dioxide and sulfur free hydrocarbon. Alternatively, the non-permeating phase can be hydrogenated to obtain hydrogen sulfide, water and sulfur free hydrocarbon.

In one example, a refinery hydrocarbon stream containing dibenzyl sulfide, dibenzyl sulfone, and dibenzyl sulfoxide, is passed into the high pressure side of a solid membrane. The benzyl sulfur compounds selectively adsorb onto the solid surface and migrate via the solid surface to the low pressure side of the membrane. There the sulfur compounds dissolve into a higher boiling range solvent hydrocarbon. The hydrocarbon feed containing no sulfur compounds does not permeate the membrane and is recovered at the outlet of the high pressure side of the membrane equipment. The solvent hydrocarbon containing the benzyl sulfur compounds exits the outlet of the low pressure side of the membrane. The solvent is then distilled to recover the benzyl sulfur compounds as an overhead stream. Next, the overhead stream is first heat treated to convert the benzyl sulfone into sulfur dioxide and hydrocarbon. Then, the overhead is hydrogenated to convert the benzyl sulfide and the benzyl sulfoxide into hydrogen sulfide, water and benzene.

In another example, the second membrane type is used. The same hydrocarbon feed containing the same benzyl sulfur compounds enters the high pressure side of the membrane. The feed hydrocarbon containing no sulfur diffuses through the membrane to the low pressure side where it becomes a sulfur free solvent. The sulfur free solvent is recovered from the exit of the low pressure side of the membrane. The concentrated benzyl sulfur compounds are recovered at the exit of the high pressure side of the membrane. These sulfur compounds are then processed as in the first example.

(RECEIVED)

Inventor(s) Signatures

1. Signed <i>Mark A Plummer</i>	Date [REDACTED]	3. Signed [REDACTED]	Date [REDACTED]
2. Signed <i>Richard J. Bonelli</i>	Date [REDACTED]	4. Signed [REDACTED]	Date [REDACTED]

Witness: *J. Merrill*

Date [REDACTED]

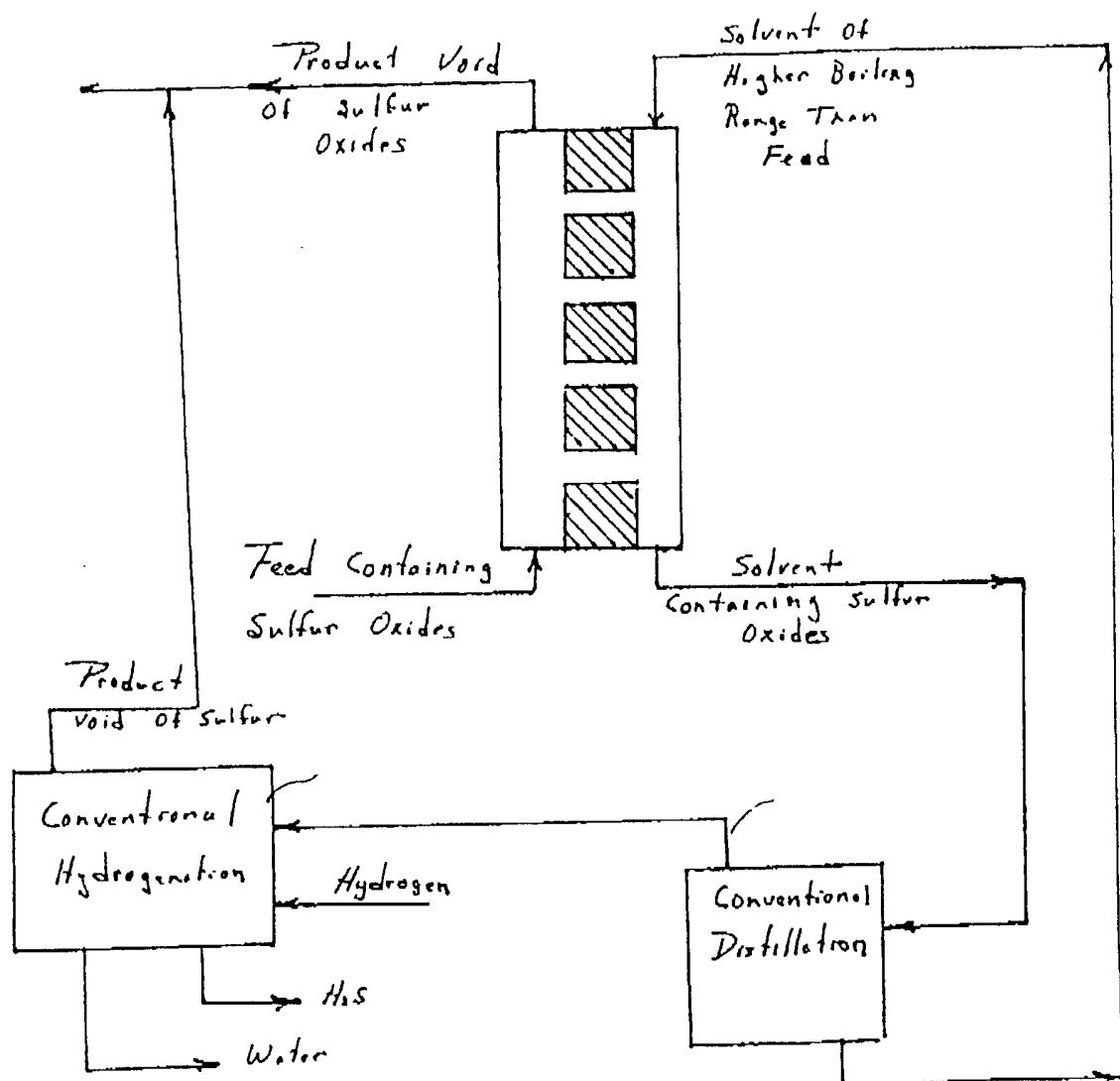
Witness: *Richard J. Bonelli*

Date [REDACTED]

Continuation

Page 3 of 4 names

NAME OF INVENTION Removal of Sulfur and Sulfur Oxide Hydrocarbon Species From Hydrocarbon Feed Or From Aqueous Of These Sulfur Species Using Solid Membranes  
SPECIFIC DESCRIPTION OF INVENTION AND EXAMPLES:



## Inventor(s) Signatures

1. Signed Mark A. Plummer Date [REDACTED] 3. Signed \_\_\_\_\_ Date \_\_\_\_\_

2. Signed Brian D. Bandif Date [REDACTED] 4. Signed \_\_\_\_\_ Date \_\_\_\_\_

Witness: J. P. Merrill Date [REDACTED] Witness: K. S. Bond Date [REDACTED]

Continuation \_\_\_\_\_

Page 4 of 4 pages

LAW OFFICES OF  
**RODNEY F. BROWN**  
PATENT and TRADEMARK LAW

3365 BALTIMORE STREET  
SAN DIEGO, CALIFORNIA 92117

(858) 272-8705  
FAX: (858) 581-1282  
E MAIL: rbrownjd@pacbell.net

January 31, 2001

Marie LaCour Murphrey  
Marathon Oil Company  
P.O. Box 4813  
Houston, TX 77210-4813

Re: "Removal of Sulfur from a Hydrocarbon through a Selective Membrane"  
New U.S. Patent Application  
My Ref. 002P0002  
Your Ref. 970019 USA

Dear Ree-C:

Enclosed are copies of the above-captioned patent application, Transmittal, Combined Declaration and Power of Attorney, Assignment, and Recordation Form Cover Sheet exactly as they were filed on January 30, 2001, in the United States Patent and Trademark Office (PTO). I will advise you of the serial number once I receive the postcard receipt filed with the application. You have been named as the correspondence address of record so all further correspondence from the PTO will be directed to your attention.

Within the next three months, I will submit the relevant prior art of which we are presently aware to the PTO in the form of an Information Disclosure Statement. Please note our prior art disclosure duty continues throughout the pendency of the application. Therefore, you should provide me with any relevant prior art coming to your attention until the patent issues.

Very truly yours,



Rodney F. Brown

RFB:0131a.002  
enclosure

cc: Richard F. Bonelli, Jr. w/enc

B - 1



**MARATHON ASHLAND Petroleum LLC**

P.O. Box 1200  
Robinson, IL 62454  
Telephone 618/544-2121

January 15, 2001

Mr. Rodney F. Brown  
Attorney at Law  
3365 Baltimore Street  
San Diego, CA 92117

Re: "Removal of Sulfur From a Hydrocarbon Through a Selective Membrane"  
New U.S. Patent Application  
Your Ref. 002P0002  
My Ref. 970019 USA

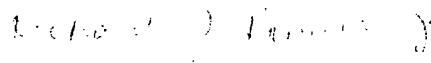
Dear Rodney:

Pursuant to your letter of January 9, 2001, I am returning to you the following signed originals:

1. Combined Declaration and Power of Attorney
2. Assignment

Once you have filed these with the United States Patent and Trademark Office (PTO), please let me know. Also, please let me know if you need anything further from me. Thanks for your help.

Yours very truly,

  
Richard F. Bonelli, Jr. 

RFB/bjs  
Enclosures

B - 2

LAW OFFICES OF  
**RODNEY F. BROWN**  
PATENT and TRADEMARK LAW

3365 BALTIMORE STREET  
SAN DIEGO, CALIFORNIA 92117

(858) 272-8705  
FAX: (858) 581-1282  
E MAIL: rbrownjd@pacbell.net

January 9, 2001

Richard F. Bonelli, Jr.  
Marathon Oil Company  
P.O. Box 1200  
Robinson, IL 62454

Re: "Removal of Sulfur From a Hydrocarbon Through a Selective Membrane"  
New U.S. Patent Application  
My Ref. 002P0002  
Your Ref. 970019 USA

Dear Richard:

Enclosed is a final draft of the above-captioned patent application which Mark Plummer has approved for filing. Enclosed are the following documents relating to the application which require your signature:

- 1) Combined Declaration and Power of Attorney
- 2) Assignment.

Please sign each document in the appropriate space and return the signed document to me. Note that the signature on the Assignment must be notarized. Upon receipt, I will file the application and signed documents with the United States Patent and Trademark Office (PTO). In the meantime, do not hesitate to call me if you have any questions.

Very truly yours,



Rodney F. Brown

RFB:0105b.002  
enclosure

B-3

# *Assignment*

Whereas, we:

Mark A. Plummer of Littleton, Colorado, and  
Richard F. Bonelli, Jr. of Robinson, Illinois,

respectively, have invented certain improvements in:

## REMOVAL OF SULFUR FROM A HYDROCARBON THROUGH A SELECTIVE MEMBRANE

identified by Attorney Docket No. 970019 USA, hereinafter called the "invention", and executed a United States Patent Application concurrently herewith; and

Whereas, the Assignee, Marathon Oil Company, a corporation of the State of Ohio, having a place of business at 539 South Main Street, Findlay, Ohio, desires to acquire the entire right, title and interest in the invention and said patent application, and to any United States and foreign patents to be obtained therefor;

Now therefore, for good and valuable consideration paid to us by the Assignee, the receipt and sufficiency of which we hereby acknowledge, we hereby sell, assign and transfer to the aforesaid Assignee its successors and assigns:

The entire right, title and interest in said invention in the United States and foreign countries, including said United States patent application and all patent applications corresponding to said United States patent application filed in foreign countries, all Letters Patents issuing thereon in the United States and foreign countries, all divisional, continuation and continuation-in-part patent applications of said United States patent application or corresponding foreign patent applications, and all reissues, reexaminations, and extensions of Letters Patents issuing thereon; and

The right to file patent applications on said invention in Assignee's own name, wherever such right may be legally exercised, including the right to claim the benefits of the International Convention for such applications.

We hereby authorize and request the United States Commissioner of Patents and Trademarks, and such officials in foreign countries as are duly authorized by their patent laws to issue patents, to issue any and all patents on said invention to the Assignee as the owner of the entire interest, for the sole use and behoof of the Assignee, its successors, assigns and legal representatives.

We hereby agree, without further consideration and without expense to us, to sign all lawful papers and to perform all other lawful acts which the Assignee may request of me us to make this Assignment fully effective.

This assignment and agreement shall be binding upon our heirs and legal representatives.

Mark A. Plummer

Mark A. Plummer

STATE OF Colorado)

: ss.

COUNTY OF Arapahoe)

On January 2, 2001, before me, Rebecca L. Poletti, Notary Public, personally appeared Mark A. Plummer, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the foregoing Assignment and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Rebecca L. Poletti

NOTARY PUBLIC

My Commission Expires 11/30/2014

Richard F. Bonelli, Jr.

STATE OF \_\_\_\_\_)

: ss.

COUNTY OF \_\_\_\_\_)

On \_\_\_\_\_, before me, \_\_\_\_\_, Notary Public, personally appeared Richard F. Bonelli, Jr., personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the foregoing Assignment and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
NOTARY PUBLIC

RFB:1228b.002

**COMBINED DECLARATION AND POWER OF ATTORNEY  
FOR PATENT APPLICATION**

As below named inventors, we hereby declare that:

Our residence, post office address and citizenship are as stated below next to our names.

We believe we are each an original, first, and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**REMOVAL OF SULFUR FROM A HYDROCARBON THROUGH A  
SELECTIVE MEMBRANE**

the specification of which is attached hereto.

We hereby state that we have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56.

As named inventors, we hereby appoint the following practitioners with full power of substitution and revocation to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith:

Rodney F. Brown, Reg. No. 30,450  
Jack E. Ebel, Reg. No. 28,148

Address all correspondence to: Marathon Oil Company  
Legal Department  
Attn: Marie LaCour Murphrey  
P.O. Box 4813  
Houston, TX 77210-4813

Phone: (713) 296-2519  
Fax: (713) 296-4365

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Mark A. Plummer  
Full Name of First Inventor

USA  
Citizenship

Mark A. Plummer  
Inventor's Signature

January 2, 2001  
Date

Littleton, Colorado, USA  
Residence (City, State and Country)

7780 S. Dexter Court, Littleton, Colorado 80122  
Post Office Address

Richard F. Bonelli, Jr.  
Full Name of Second Inventor

USA  
Citizenship

Inventor's Signature

Date

Robinson, Illinois, USA  
Residence (City, State and Country)

8512 N. 1100th Street, Robinson, Illinois 62454  
Post Office Address

RFB:1228a.002

**From:** Rodney F. Brown <rbrownjd@pacbell.net>  
**To:** Mark Plummer <maplummer@marathonoil.com>  
**Date:** Thursday, December 28, 2000 10:51 AM  
**Subject:** 970019 USA

Mark,  
Attached are the Assignment and the Combined Declaration and Power of Attorney for your signature in the  
above-captioned patent application.  
Thanks,  
Rod

12/28/00

B- 8

**From:** Mark A Plummer <maplummer@marathonoil.com>  
**To:** rbrownjd@pacbell.net <rbrownjd@pacbell.net>  
**Date:** Wednesday, December 27, 2000 1:59 PM  
**Subject:** 970019 USA -Reply

Hey Rod Brown,

The last draft looks perfect. Please E-mail or fax all the stuff I need to sign by noon tomorrow. Jack Ebel and I will go get it notarized along with some other stuff. Tomorrow will be my last day at PTC, but I officially "r" word on 01/01/01. Hope our paths cross many times in the future. If I can ever be of help to you as a reference or as a consultant, don't hesitate to contact me!!!!

Best regards,

Mark Plummer

12/28/00

B-9

**Law Offices of Rodney F. Brown**

3365 Baltimore Street  
San Diego, CA 92117

**Invoice**

DATE	INVOICE NO.
1/31/01	4461

**CLIENT**

Marathon Oil Company  
P.O. Box 4813  
Houston, TX 77253-4813

**DOCKET NO.**

002P0002

DATE	DESCRIPTION OF SERVICES AND EXPENSES	HOURS	RATE	AMOUNT
1/30/01	Prepared filing documents; filed same in PTO with application; transmitted same to client with advisory letter.  SUBTOTAL of LEGAL SERVICES	2	180.00	360.00
1/30/01	express mail		12.25	12.25
1/30/01	PTO fee; application filing		800.00	800.00
1/30/01	PTO fee; assignment recordation		40.00	40.00
	Total Reimbursable Expenses			852.25
002P0002 (970019 USA) Removal of Sulfur Species Using Solid Membranes		<b>Total</b>	\$1,212.25	

C-1

**Law Offices of Rodney F. Brown**

3365 Baltimore Street  
San Diego, CA 92117

**Invoice**

DATE	INVOICE NO.
12/31/00	4446

CLIENT
Marathon Oil Company P.O. Box 4813 Houston, TX 77253-4813

DOCKET NO.
002P0002

DATE	DESCRIPTION OF SERVICES AND EXPENSES	HOURS	RATE	AMOUNT
12/14/00	Revised application; transmitted same to client with advisory memo; prepared informal drawings; transmitted same to draftsman with instruction memo.	6	180.00	1,080.00
12/19/00	Reviewed inventor's final comments to application; revised application in accordance with same; transmitted same to client with advisory memo; telephone conference with client re: same.	2	180.00	360.00
12/28/00	Prepared filing documents; transmitted same to client with advisory memo; finalized application; telephone conference with inventor re: same.  SUBTOTAL of LEGAL SERVICES	3	180.00	540.00
12/19/00	PTO patent drawings; 1 sheet  SUBTOTAL of REIMBURSABLE EXPENSES			1,980.00 130.00 130.00
002P0002 (970019 USA) Removal of Sulfur Species Using Solid Membranes		Total	\$2,110.00	

C-2